

OSI Model

#CiscoCert Reference



LAYER	DATA UNIT/FUNCTION	CENTRAL DEVICE PROTOCOLS	DOD4 MODEL
APPLICATION (7) Serves as the window for users and application processes to access the network services.	Data: Network access to application	User Applications TFTP,HTTP,FTP,TELNET,SMTP	Process/ Application
PRESENTATION (6) Formats the data to be presented to the Application layer. It can be viewed as the “Translator” for the network.	Data: Encrypt and Decrypt	JPEG,ASCII,EBDIC, TIFF,GIF,PICT	
SESSION (5) Allow session embellishment between processes running on different stations.	Data: Establishes and Ends connection	Logical Ports RPC,SQL,NFS, NetBIOS names	
TRANSPORT (4) The transport layer defines services to segment, transfer, and reassemble the data for individual communications between the end devices. Reliable delivery of the files is important, so the transport layer breaks down large files into smaller segments that are less likely to incur transmission problems.	Segment: Establish End-to-end Connection	TCP,SPX,UDP	Host to Host
NETWORK (3) The network layer provides connectivity and path selection between two host systems by providing logical addressing.	Packets: Routing of data packets	Routers IPv4,IPv6, ICMP,IGMP,IPX	Internet
DATA LINK (2) Provides error-free transfer of data frames from one node to another over the Physical layer.	Frames: MAC and LLC, Physical addressing	Switch Bridge WAP PPP,HDLC,CDP, Frame relay	Network
PHYSICAL (1) Concerned with the transmission and reception of the unstructured raw bit stream over the physical medium.	Bits: Media Signal and Binary Transmission	Hubs, Media Cards, cables	